



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,625	12/20/2000	Frank Bor-Her Chen	25164-67462	9358

28863 7590 11/13/2009
SHUMAKER & SIEFFERT, P. A.
1625 RADIO DRIVE
SUITE 300
WOODBURY, MN 55125

EXAMINER

LIGHTFOOT, ELENA TSOY

ART UNIT	PAPER NUMBER
----------	--------------

1792

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

11/13/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pairdocketing@ssiplaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRANK BOR-HER CHEN, GREGORY DAVID MUSELMAN,
TRAVIS W. IDOL and DAVID H. NOWAK

Appeal 2009-013105
Application 09/742,625
U.S. Patent Publication 2001/0006704
Technology Center 1700

Decided: November 10, 2009

Before: FRED E. McKELVEY, *Senior Administrative Patent Judge*,
and RICHARD E. SCHAFER and SALLY GARDNER LANE,
Administrative Patent Judges.

McKELVEY, *Senior Administrative Patent Judge.*

DECISION ON APPEAL

1 A. Statement of the case

2 Valspar Sourcing, Inc., a wholly owned subsidiary of The Valspar
3 Corporation, [hereinafter Valspar], the real party in interest, seeks review
4 under 35 U.S.C. § 134(a) of a final rejection (mailed 15 July 2008).

5 The application was filed on 20 December 2000.

6 Claims 37-39, 51-52 and 67-71 are on appeal.

7 The following prior art has been cited:

Cummings	Patent, 3,529,993	22 Sep. 1970
van der Hoeven	Patent 4,789,604	6 Dec. 1988
Helmer	Patent 6,075,079	13 Jun. 2000
Schedlitzki	DE 2 224 732	6 Dec. 1973

8

9 The reader should know that "et al" is not used in this opinion.

10 Cummings, van der Hoeven and Schedlitzki are prior art under
11 35 U.S.C. § 102(b).

12 Helmer is prior art under 35 U.S.C. § 102(a).

13 Valspar does not contest the prior art status of Helmer.

14 We have jurisdiction under 35 U.S.C. § 134(a).

15 B. Findings of fact

16 The following findings of fact are supported by at least a
17 preponderance of the evidence.

18 Additional findings as necessary appear in the Discussion portion of
19 the opinion.

The invention

The invention can be understood by reference to independent claim 37 on appeal, which reads [bracketed material and some indentation added]:

A process for the manufacture of polymer coated composite substrate, said process comprising:

[1] providing a compressible mat, wherein the compressible mat comprises at least one of [a] fibers and [b] particles in a resin binder composition;

[2] applying on a surface of the compressible mat a formaldehyde-free, chemically crosslinkable primer coating composition, comprising:

[a] 95 to 99 % by weight, based on weight of dry materials in the composition, of an anionically stabilized aqueous emulsion of a copolymer with a T_g of -10 °C to 50 °C, the polymer comprising in polymerized form a polymerization mixture containing two or more ethylenically unsaturated monomers;

[b] 0.2 to 5% by weight of a polyimine compound having a number average molecular weight from 250 to 20,000; and

[c] 0.2 to 5% by weight of a volatile base; wherein the chemically crosslinkable composition forms a chemically crosslinked polymer matrix when, or as, the composition is being applied to the compressible mat;

1 [3] applying on the crosslinked polymer matrix a top
2 coat composition comprising a thermoplastic or a thermosetting
3 polymer latex composition to form a top coat layer; and
4 [4] compressing and heating the crosslinked polymer
5 matrix, the top coat layer, and the compressible mat to form the
6 polymer coated composite substrate.

7 According to the Valspar specification, the compressible mat
8 comprises cellulosic fibers or particles, and/or wood chips or flakes.
9 Specification, page 4:30-31.

10 The formaldehyde-free, chemically crosslinkable primer coating
11 composition is a known product: "[o]ne polymer coating composition . . . is
12 commercially available from [T]he Dow Chemical Company as a fast-set
13 50% solids latex sold under the name Dow DT 211 NA." Specification,
14 page 7:13-16. *See also* Helmer, claim 1, col. 25:22-48.

15 The top coat composition preferably is a thermosetting or
16 thermoplastic polymer latex. Specification, page 9:28-29.

17 An example of a top coat composition is one containing styrene,
18 methylmethacrylate, butyl acrylate, glycidal methacrylate and methacrylic
19 acid. Specification, page 14:1-13.

20 Rejections

21 The Examiner rejected claims 37-39, 50-52 and 67-71 as being
22 unpatentable under 35 U.S.C. § 103(a) over (1) Schedlitzki, (2) Cummings
23 and (3) Helmer. Final Rejection, page 2. The Examiner refers to
24 Schedlitzki as DE 2224732.

1 The Examiner rejected claims 38-39 and 71 as being unpatentable
2 under 35 U.S.C. § 103(a) over (1) Schedlitzki, (2) Cummings, (3) Helmer
3 and (4) van der Hoeven. Final Rejection, page 2.

4 Observations about the claims vis-à-vis the rejections

5 Claim 50 has been cancelled. Appeal Brief, (1) page 3 (Status of
6 claims, lines 1-2) and (2) page 14. Accordingly, "rejected" claim 50 is not
7 involved in the appeal.

8 In the Answer, the Examiner states that claims 37-39, 50-52 and
9 67-70 (not 71 as set out in the Final Rejection) are rejected over Schedlitzki,
10 Cummings and Helmer. Examiner's Answer, page 3.

11 Valspar understands that claim 71 was rejected over the three prior art
12 references. Appeal Brief, page 5, Grounds of rejections to be reviewed on
13 appeal, paragraph (1).

14 In our view, the reference to claims 67-70 in the Answer is a
15 typographical error which should have been 67-71.

16 Claims 38-39 and 71 are involved in both rejections.

17 Prior art

18 (1) Schedlitzki

19 We begin a prior art analysis with Schedlitzki—a German language
20 document for which a translation has been provided.

21 Valspar does not contest the accuracy of the translation.

22 We will refer to page numbers of the translation.

23 Example 2 (page 8) describes a process similar to that of claim 37.

24 In a first step, according to Example 2, paper is impregnated with a
25 mixture of (page 8, lines 2-4):

1 (1) a commercially available aqueous solution of a melamine
2 resin and;

3 (2) a commercially available aqueous solution of a urea resin.

4 In a second step, after addition of a hardener, the impregnated paper is
5 dried for one minute at 140 °C. (284 °F.). Page 8, lines 5-6.

6 In a third step, a mixture of (1) a commercially available melamine
7 resin solution and (2) a self-crosslinking acrylic resin dispersion is applied to
8 the "top side of the preimpregnated paper web." Page 8, lines 10-11.

9 In a fourth step, paper web with the melamine/acrylic applied to the
10 top side is dried for 1.5 minutes at 140 °C (284 ° F). Page 8, line 13.

11 In a fifth and last step, the preimpregnated paper web, coated on one
12 side, is pressed under a pressure of 18 kp/cm² at 170 °C (338 ° F) for 40
13 seconds on a wood plate. Page 8, lines 16-17.

14 (2) Claim 37 vis-à-vis Schedlitzki

15 The Examiner found that the Schedlitzki paper web is a compressible
16 mat within the meaning of claim 37. Examiner's Answer, page 3.

17 The Examiner further found that it is well known in the art that paper
18 is made from cellulosic fibers. Examiner's Answer, pages 3-4.

19 Insofar as we can tell, Valspar does not contest the Examiner's
20 findings.

21 The melamine/urea coating composition described by Schedlitzki
22 differs from the Helmer coating called for by step [2] of claim 37.

23 The melamine/acrylic resin Schedlitzki coating corresponds to
24 Valspar's "top coat." Note that the top coat described at page 14 of the
25 specification includes an acrylic resin.

1 The Schedlitzki and claim 37 steps correspond as follows:

Claimed step	Schedlitzki step
Step [1]—providing a compressible mat	Providing paper to be impregnated—page 8, line 2
Step [2]—applying a Helmer coating composition	Impregnating with a melamine/urea resin—page 8, lines 3-5
Step [3]—applying a thermosetting or thermoplastic top coat	Applying melamine/acrylic resin dispersion—page 8, lines 10-13
Step [4]—compressing and heating to form a composite substrate	Pressing and heating at 170 °C. on a wood plate—page 8, lines 16-21

3

4 (3) Cummings

5 Cummings describes "rapid-curing primer[s]" which can be applied to
6 wood, steel, and roads (traffic paint). Col. 2:14-37.

7 The rapid-curing primer coatings are made by spraying a surface
8 simultaneously with a polyamine and a polyanhydride. Col. 2:41-43.

9 The reaction product of a polyamine and a polyanhydride will be a
10 polyimine.

1 (4) Helmer

2 Helmer, owned by The Dow Chemical Company, describes the resins
3 used in step [2] of claim 37 as reproduced above. Col. 2:60 through
4 col. 3:14.

5 The resins are said to be fast hardening aqueous coating compositions.
6 Col. 2:60-61.

7 A significant use for the resins is as a fast hardening aqueous traffic
8 marking paint which forms a hard smear-resistant surface very soon after
9 application under ambient conditions to a surface, such as a road way.
10 Col. 1:15-18.

11 The use is similar to that describe by Cummings for its polyimine
12 resins.

13 Helmer also states (col. 25:9-20):

14 The fast hardening aqueous coating compositions of this
15 invention can be used as fast hardening migration resistant
16 binders for non-woven or woven fibers, which may be organic
17 or inorganic fibers, synthetic or natural. In this application,
18 organic or inorganic fillers may be used as well. Various
19 combinations of the fillers and fibers can be used with the fast
20 hardening migration resistant binders of this invention to form
21 fast hardening migration resistant binder compositions and
22 bonded composites. The prior art technology related to this
23 field of use is discussed in U.S. Pat[ents] . . . 4,199,400 and
24 4,119,600, both of which are hereby incorporated by reference.

1 C. Discussion

2 The Examiner determined that Valspar was using a known material
3 (the Helmer resin) for its intended purpose (as a coating). On that basis, and
4 citing *Sinclair & Carroll Co., Inc. v. Interchemical Corporation*, 325 U.S.
5 327 (1945), the Examiner held that the invention of claim 37 would have
6 been obvious. Examiner's Answer, page 11.

7 A review of the prior art reveals that the coating composition applied
8 by step [2] of the process of claim 37 is known.

9 In fact, it appears to have been a known commercial product.

10 The commercial product would appear to fall within the resins
11 described by Helmer.

12 Helmer reveals that the coating composition can be cured at room
13 temperature and rapidly. In fact, it cures so rapidly that it can be used to
14 coat streets as traffic paints. We have all seen traffic directing insignia on
15 street pavement consistent with what Helmer is describing. But that it not
16 the only use that Helmer reveals. Helmer also teaches those skilled in the art
17 to coat non-woven fibers. Col. 25:9-20. Paper often comprises non-woven
18 fibers. While two patents mentioned and incorporated by reference into
19 Helmer, have not been discussed, one cannot help but notice that a review of
20 those two patents will immediately confirm that through its incorporation by
21 reference of the two patents, Helmer teaches the coating of paper.

22 The only difference we can find between claim 37 and Schedlitzki is
23 the coating composition used in step [2] of claim 37. It is true that the
24 coating compositions are different, but Helmer suggests to one skilled in the
25 art that its coating composition can be used to coat non-woven fabric.

The Examiner found that one skilled in the art would have been encouraged to use the Helmer coating composition in place of the Schedlitzki composition because the Helmer composition can be cured at room temperature thereby saving costs associated with a need to heat.

Cummings teaches that an industry need is avoiding heat expense.
Col. 2:29-34.

The prior art, therefore, describes a reason which would have prompted a person of ordinary skill in the art to use the Helmer coating composition. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007).

Valspar attempts to convince us that the Examiner erred for several reasons.

(1)

A first argument is that the process of claim 37 does not include a paper carrier. Appeal Brief, pages 6-7.

According to Valspar, the cited references do not "teach or suggest elimination of the primer carrier sheet."

We understand Valspar to be saying that the "compressible mat" of claim 37 is not paper, but instead has to be wood.

Since Schedlitzki has "paper" between the coating and the wood, Schedlitzki is said to fail as an acceptable prior art reference because the Schedlitzki coating is not "on a surface of the compressible mat."

There are several problems with Valspar's argument.

First, as claim 38 and page 3:15-17 of the Valspar specification reveal, paper may be glued to the compressible mat.

Second, as noted by the Examiner, nothing in step [4] of claim 37 precludes the presence of a wood substrate to which the coated compressible paper is adhered.

Third, the paper of Schedlitzki is a compressible mat within the broad meaning of "compressible mat" in claim 37.

Valspar does not contest the fact that paper can be made from cellulosic fibers and according to Valspar's specification, the "compressible mat" may comprise "cellulosic fibers". Specification, page 4:30.

Valspar's arguments fail to appreciate the breadth of the claims and overlook the well known principle that during examination claims are given their broadest reasonable constructive consistent with the specification.

In re Prater, 56 CCPA 1381, 1395-96, 415 F.2d 1393 (CCPA 1969).

(2)

Valspar maintains that Schedlitzki does not describe coating a "topcoat " over the "primed sheet" prior to heating and pressing. Appeal Brief, page 7.

Valspar does not convincingly address why that part of Example 2 of Schedlitzki describing application of a melamine/acrylic resin dispersion (page 8:10-13) does not meet the step [3] limitation of claim 37.

(3)

Valspar next argues that there is no "incentive to replace" the Schedlitzki melamine/urea resin with that of Cummings. Appeal Brief, pages 7-8. Valspar further argues that there is no reason to then substitute the Helmer resin for that of Cummings. Appeal Brief, pages 8-10.

1 What these two arguments amount to is a belief on the part of Valspar
2 that there is no reason why one skilled in the art would have "substituted"
3 the coating resin of Helmer for the melamine/urea resin of Schedlitzki.

4 Valspar's position collides with the Examiner's finding that use of the
5 Helmer resin in the Schedlitzki process amounts to a use of a known
6 material for its intended purpose.

7 In many respects, the facts here parallel those in *Sinclair*. Schedlitzki
8 was published in 1973. Helmer was published on a date subsequent to 1973.
9 Accordingly, one skilled in the art would not have known about the Helmer
10 resin in 1973. But once known, then those skilled in the art were free
11 (subject to Helmer's patent rights) to use the Helmer resins where
12 appropriate. In *Sinclair*, Dr. Gessler read a list and selected a particular
13 solvent. "Reading a list and selecting a known compound to meet known
14 requirements is no more ingenious than selecting the last piece to put into
15 the last opening in a jig-saw puzzle. It is not invention [meaning it would
16 have been obvious]." *Sinclair*, 325 U.S. at 335. The Helmer resin was
17 known to be a useful coating and Schedlitzki requires a coating.
18 Substituting the Helmer resin for the Schedlitzki melamine/urea resin would
19 have been a logical step—particularly since one skilled in the art would have
20 recognized that the substitution would eliminate a heating step described by
21 Schedlitzki.

22 Valspar has not shown that some unpredictable result is obtained by
23 using the known Helmer resin vis-à-vis the Schedlitzki melamine/urea resin.
24 Thus, the case boils down to the use of a known prior art resin for its
25 intended purpose all the while achieving a predictable result. These facts

1 suggest that the invention of claim 37 would have been obvious. *KSR*, 550
2 U.S. at 416 (where a patent claims a structure already known in the prior art
3 that is altered by the mere substitution of one element for another known in
4 the field, the combination must do more than yield a predictable result; the
5 combination of familiar elements according to known methods is likely to be
6 obvious when it does no more than yield predictable results). *See also*
7 *Hotchkiss v. Greenwood*, 52 U.S. 248 (1850) (involving a holding of lack of
8 invention [meaning obviousness] where a clay was substituted for a metal or
9 wood in a door knob).

10 (4)

11 Valspar tries to make this case an "obvious to try" case maintaining
12 that there is not a finite number of solutions from which to "pick." Appeal
13 Brief, page 10. In support of its argument, Valspar tells us that "[a] search
14 of the PTO website reveals that over 75,000 issued patents are directed to
15 coatings." Appeal Brief, page 10. Given the 75,000 patents, Valspar
16 maintains that the Examiner has not explained why the Helmer resin would
17 be "picked." Presumably the Helmer patent is one of the 75,000 patents.

18 We have several problems with Valspar's approach.

19 First, we are not told *who* performed the search. We are not told what
20 the *search inquiry* might have been. We are not told how many of the
21 75,000 patents are prior art—in other words, some might be totally irrelevant
22 to a proper obviousness inquiry. The search is accorded little weight. All
23 we have is attorney argument. Attorney argument cannot take the place of
24 evidence in the record. *In re Walters*, 35 CCPA 1160, 1162, 168 F.2d 79, 80
25 (CCPA 1948).

Second, if a search of the kind said to have been performed always yields a high number of patents, then an applicant could always avoid obviousness even where a known material is being used for its intended purpose. Valspar's position does not make sense and would remove from the public domain any number of inventions which are barred by § 103.

Third, this is not an "obvious to try" case. Rather, this case involves the use of a known material for its intended purpose. The overall process of Valspar claim 37 is known. After it became known via Schedlitzki, the Helmer resin came into existence as a commercial product. What Valspar did—which every person having ordinary skill in the art should be allowed to do—is use the "new" commercial product for its intended purpose. Granting Valspar a patent containing claim 37 would remove obvious subject matter from the public domain—a removal which § 103 is designed to prevent. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1259 (Fed. Cir. 2007).

(5)

Since Valspar did not single out limitations in the other claims on appeal for separate consideration, all of the remaining claims fall with claim 37.

(6)

All of the claims on appeal are unpatentable under § 103 over Schedlitzki, Cummings and Helmer.

There is a second rejection of claims 38-39 and 71 over the three references in combination with van der Hoeven.

We need not reach the second rejection given that claims 38-39 and 71 have been held to be unpatentable over the other three references.

Nevertheless, we make the following observations.

The Examiner cited van der Hoeven to show that application of coatings to wood with paper attached to the wood is known.

Valspar does not contest the finding by the Examiner that van der Hoeven describes coatings to combinations of wood and paper.

Instead, the only "addition[al]" argument is that the amine derived compound described by Schedlitzki and Cummings are different from the Helmer resins. Appeal Brief, page 11.

We have already addressed why that difference does not make a case for Valspar.

(7)

We have resolved the obviousness issues on the basis of the Examiner's rejection and Valspar's arguments contesting the rejection.

However, in the event of further prosecution, we make the following observations about claims 38 and 39 vis-à-vis claim 37.

Independent Claim 37 requires "applying on *a surface* of the compressible mat a . . . coating." (Italics added)

Dependent claim 38 reads:

The process of claim 37 wherein the compressible mat further comprises a sheet of paper which is glued to the surface of the mat.

If a sheet of paper is glued to the surface of the mat, then it would not be possible to apply the coating "on a surface of the compressible mat"

1 because the coating would be applied to the paper and not a surface of the
2 mat.

3 Claims 37 and 38 are not consistent and therefore one might say claim
4 38 and claim 39, which further depends from claim 38, are ambiguous.
5 35 U.S.C. § 112, second paragraph.

6 If there is further prosecution, this matter may be considered by the
7 Examiner and Valspar.

8 Other arguments

9 We have considered Valspar's remaining arguments and find none
10 that warrant reversal of the Examiner's rejections. *Cf. Hartman v.*
11 *Nicholson*, 483 F.3d 1311, 1315 (Fed. Cir. 2007).

12 D. Decision

13 Valspar has not sustained its burden on appeal of showing that the
14 Examiner erred in rejecting the claims on appeal as being unpatentable under
15 § 103 over the prior art.

16 Upon consideration of the appeal, and for the reasons given herein,
17 it is

18 ORDERED that the decision of the Examiner rejecting
19 claims 37-39, 51-52 and 67-71 (all of the claims on appeal) over the prior art
20 is *affirmed*.

21 FURTHER ORDERED that no time period for taking any
22 subsequent action in connection with this appeal may be extended under
23 37 C.F.R. § 1.136(a)(1)(iv) (2008).

AFFIRMED

Appeal 2009-013105
Application 09/742,625

KMF

cc (via First Class mail)

SHUMAKER & SIEFFERT, P. A.
1625 Radio Drive, Suite 300
Woodbury, MN 55125